

LIST OF TABLES

Chapter 1

Table 1-1	Technology Basis for 1995 BPT Effluent Limitations	1-6
-----------	--	-----

Chapter 2

Table 2-1	Chemical Compounds Analyzed Under EPA Analytical Methods	2-7
-----------	--	-----

Chapter 3

Table 3-1	Summary of the Frequency of the Types of Activities and Dispositions Reported	3-6
Table 3-2	Summary of Frequency of Each Product Class Reported by Facilities	3-6

Chapter 4

Table 4-1	Geographic Distribution of CWT Facilities (145 Facilities)	4-3
Table 4-2	Waste Form Codes Reported by CWT Facilities in 1989	4-3
Table 4-3	RCRA Codes Reported by Facilities in 1989	4-3
Table 4-4	Facility Discharge Options	4-6
Table 4-5	Quantity of Wastewater Discharged (205 Facilities)	4-6

Chapter 6

Table 6-1	Pollutants of Concern for the Metals Subcategory	6-4
Table 6-2	Pollutants of Concern for the Oils Subcategory	6-6
Table 6-3	Pollutants of Concern for the Organics Subcategory	6-9
Table 6-4	Pollutants Not Selected as Pollutants of Concern for the Metals Subcategory	6-11
Table 6-5	Pollutants Not Selected as Pollutants of Concern for the Oils Subcategory	6-16
Table 6-6	Pollutants Not Selected as Pollutants of Concern for the Organics Subcategory	6-20
Table 6-7	Concentration of Benzo(a)pyrene in Industrial Products (Osborne & Crosby, 1987)	6-26

Chapter 7

Table 7-1	Pollutants Not Detected At Treatable Levels	7-4
Table 7-2	Volatile Organic Pollutant Properties By Subcategory	7-8
Table 7-3	Non-Regulated Volatile Organic Pollutants by Subcategory and Option ..	7-14
Table 7-4	CWT Pass-Through Analysis Generic POTW Percent Removals	7-18
Table 7-5	Final POTW Percent Removals	7-19
Table 7-6	Final Pass-Through Results For Metals Subcategory Option 3	7-22
Table 7-7	Final Pass-Through Results For Metals Subcategory Option 4	7-23
Table 7-8	Final Pass-Through Results For Oils Subcategory Option 9	7-24
Table 7-9	Final Pass-Through Results For Organics Subcategory Option 3/4	7-26
Table 7-10	Pollutants Eliminated Due to Non-Optimal Performance	7-27

Table 7-11	Pollutants Eliminated Since Technology Basis is Not Standard Method of Treatment	7-28
Table 7-12	Frequency of Detection of n-Paraffins in CWT Oils Subcategory Wastes ..	7-30
Table 7-13	Frequency of Detection of Polyaromatic Hydrocarbons in CWT Oils Subcategory Wastes	7-31
Table 7-14	Frequency of Detection of Phthalates in CWT Oils Subcategory Wastes ..	7-32
Table 7-15	Final List of Regulated Pollutants for Direct Discharging CWTs	7-33
Table 7-16	Final List of Regulated Pollutants for Indirect Discharging CWT Facilities	7-34

Chapter 8

Table 8-1	Percent Treatment In-place by Subcategory and by Method of Wastewater Disposal	8-2
-----------	---	-----

Chapter 9

Table 9-1	Average Influent and Effluent Oil and Grease and Total Petroleum Hydrocarbon (TPH) Concentrations at Sampled Industrial Laundry Facilities	9-10
-----------	--	------

Chapter 10

Table 10-1	Facilities and Sample Points Used to Develop Long-term Averages and Limitations	10-4
Table 10-2	Aggregation of Field Duplicates	10-9
Table 10-3	Aggregation of Grab Samples and Daily Values	10-10
Table 10-4	Aggregation of Data Across Streams	10-11
Table 10-5	Metals Subcategory: Long-Term Averages Replaced by the Baseline Values	10-15
Table 10-6	Cases where Variability Factors were Transferred	10-31
Table 10-7	Long-Term Averages and Variability Factors Corresponding to Example for Hypothetical Group X	10-34
Table 10-8	BOD ₅ and TSS Parameters for Organics Subcategory	10-38
Table 10-9	TSS Parameters for Metal Finishing	10-38

Chapter 11

Table 11-1	Standard Capital Cost Algorithm	11-2
Table 11-2	Standard Operation and Maintenance Cost Factor Breakdown	11-3
Table 11-3	CWT Treatment Technology Costing Index -- A Guide to the Costing Methodology Sections	11-4
Table 11-4	Cost Equations for <i>Selective Metals Precipitation</i> in Metals Options 2 and 3	11-6
Table 11-5	Cost Equations for <i>Secondary Chemical Precipitation</i> in Metals Options 2 and 3	11-8
Table 11-6	Cost Equations for <i>Tertiary Chemical Precipitation</i> in Metals Option 3 ..	11-9
Table 11-7	Cost Equations for <i>Primary Chemical Precipitation</i> in Metals Option 4 ..	11-12
Table 11-8	Cost Equations for <i>Secondary (Sulfide) Precipitation</i> for Metals Option 4	11-5

Table 11-9	Cost Equations for <i>Clarification and Plate and Frame Liquid Filtration in Metals Option 2,3,4</i>	11-16
Table 11-10	Design Parameters Used for Equalization in CAPDET Program	11-17
Table 11-11	Summary of Cost Equations for <i>Equalization</i>	11-18
Table 11-12	Cost Equations for <i>Air Stripping</i>	11-19
Table 11-13	Cost Equations for <i>Multi-Media Filtration</i>	11-20
Table 11-14	Cost Equations for <i>Cyanide Destruction</i>	11-21
Table 11-15	Cost Equations for <i>Secondary Gravity Separation</i>	11-21
Table 11-16A	Estimate Holding Tank Capacities for DAF Systems	11-22
Table 11-16B	Estimate Labor Requirements for DAF Systems	11-23
Table 11-17	Cost Equations for <i>Dissolved Air Flotation (DAF)</i> in Oils Options 8 and 9	11-25
Table 11-18	Cost Equations for <i>Sequencing Batch Reactors</i>	11-26
Table 11-19	Cost Equations for <i>Plate and Frame Sludge Filtration</i> in Metals Option 2, 3 and 4	11-28
Table 11-20	Cost Equations for <i>Filter Cake Disposal</i> for Metals Options 2 and 3 ..	11-30
Table 11-21	Monitoring Frequency Requirements	11-31
Table 11-22	Analytical Cost Estimates	11-32
Table 11-23	RCRA Permit Modification Costs Reported in WTI Questionnaire ...	11-33
Table 11-24	State Land Costs for the CWT Industry Cost Exercise	11-34
Table 11-25	Cost of Implementing BPT Regulations [in 1997 dollars]	11-44
Table 11-26	Cost of Implementing PSES Regulations [in of 1997 dollars]	11-45

Chapter 12

Table 12-1	Metals Subcategory Pollutant Concentration Profiles for Current Loadings	12-3
Table 12-2	Example of Metals Subcategory Influent Pollutant Concentration Calculations	12-4
Table 12-3	Treatment-in-Place Credit Applied to Oils Facilities	12-9
Table 12-4	Biphasic Sample Calculations (Summary of rules for combining aqueous/organic phase concs.)	12-11
Table 12-5	Examples of Combining Aqueous and Organic Phases for Sample 32823	12-12
Table 12-6A	Example of Five Substitution Methods for Non-Detected Measurements of Hypothetical Pollutant X	12-14
Table 12-6B	Difference in Oils Subcategory Loadings After Non-Detect Replacement Using EPA Approach	12-15
Table 12-7	Oils Subcategory Emulsion Breaking/Gravity Separation Data Sets Before and After Sample-Specific Non-Detect Replacement	12-16
Table 12-8	Current Loadings Estimates for the Organics Subcategory (units = ug/L)	12-34
Table 12-9	Long Term Average Concentrations (ug/L) for All Pollutants of Concern	12-37
Table 12-10	Summary of Pollutant Loadings and Removals for the CWT Metals Subcategory	12-42
Table 12-11	Summary of Pollutant Loadings and Removals for the CWT Oils Subcategory	12-43
Table 12-12	Summary of Pollutant Loadings and Removals for the CWT Organics Subcategory	12-45
Table 12-13	Summary of Pollutant Loadings and Removals for the Entire CWT Industry	12-47

Chapter 13

Table 13-1	Projected Air Emissions at CWT Facilities	13-3
Table 13-2	Projected Incremental Filter Cake Generation at CWT Facilities	13-4
Table 13-3	National Volume of Hazardous and Non-hazardous Waste Sent to Landfills	13-4
Table 13-4	Projected Energy Requirements for CWT Facilities	13-5
Table 13-5	Projected Labor Requirements for CWT Facilities	13-6

Chapter 14

Table 14-1	Waste Receipt Classification	14-4
Table 14-2	RCRA and Waste Form Codes Reported by Facilities in 1989	14-8
Table 14-3	Waste Form Codes in the Metals Subcategory	14-14
Table 14-4	Waste Form Codes in the Oils Subcategory	14-14
Table 14-5	Waste Form Codes in the Organics Subcategory	14-15
Table 14-6	Proposed BAT Daily Maximum Limits for Selected Parameters	14-17
Table 14-7	“Building Block Approach” Calculations for Selected Parameters for Example 14-1	14-18
Table 14-8.	Proposed Daily Maximum Pretreatment Standards for Selected Parameters	14-21
Table 14-9	CWF Calculations for Selected Parameters for Example 14-1 Using 40 CFR 403 and Guidance in <u>EPA’s Industrial User Permitting Guidance Manual</u>	14-21
Table 14-10	CWF Calculations for Selected Parameters in Example 14-1 Using the <u>Guidance Manual for Use of Production-Based Pretreatment Standards and Combined Waste Stream Formula</u>	14-22
Table 14-11	Daily Maximum Limits and Standards for Example 14-1	14-22
Table 14-12	Allowances for Use in Applying the Combined Waste Stream Formula for CWT Oils Subcategory Flows (PSES or PSNS)	14-23
Table 14-13	Allowances for Use in Applying the Combined Waste Stream Formula for CWT Organics Subcategory Flows	14-23
Table 14-14	CWF Calculations for Example 14-1 Including Allowances	14-24

Chapter 15

Table 15-1	Analytical Methods and Baseline Values	15-4
Table 15-2	Baseline values for Method 85.01	15-7